

2013 Indiana response to:

40 CFR Part 51-Subpart S Inspection/Maintenance Program Requirements  
51.366 – Data Analysis and Reporting Requirements

(c) Quality Control Report

(1) The number of emission testing sites and lanes in use in the program:

During the period of January 1, 2013 and December 31, 2013 there were seven test sites and twenty-four operational testing lanes.

2013 Indiana response to:

40 CFR Part 51-Subpart S Inspection/Maintenance Program Requirements  
51.366 – Data Analysis and Reporting Requirements

(c) Quality Control Report

(2) The number of equipment audits by station and lane:

From 1998 to 2003 none of the exhaust gas sampling systems at any of the test sites failed a semi-annual gas challenge audit. In 2004 the Indiana Department of Environmental Management (IDEM) began performing periodic reviews of monthly calibration and maintenance data for all of the exhaust gas analyzers and dynamometers in the testing lanes in lieu of gas challenge audits.

Operations at the test sites are also monitored remotely by a system of web cams installed at each testing facility. The cameras provide views of the all the testing lanes from the front, looking toward the back and from the back, looking toward the front. Cams are also located in the manager's office, the license renewal booth, the safe and VIR locked storage room, and on the front of each site looking out at the vehicle queue area. IDEM I/M personal view all of the test sites on a daily basis. Each morning mini-calibrations are conducted on each lane and zero/spans are run at least every two hours while the test sites are open. IDEM I/M program personal check the mini-cals and zero/spans daily from their Indianapolis location.

See the attached check sheets: 2013 Indiana I/M program quarterly test equipment calibration data audits.

**2013**

**INDIANA I/M PROGRAM  
QUARTERLY TEST EQUIPMENT  
CALIBRATION DATA AUDITS**

Calibration Records Audit (1st Quarter, 2013)

Date: 4/26/13

Vehicle Emission Test Site: Hammond - test site #1

PAT

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed - result

Date calibration performed - result

Lane: #1

CVS Cals	BAR-90 Cals	4WD Dyno Cals
1-28-13 JKC OK	1-28-13 JKC OK	1-28-13 Chad OK
2-11-13 JC OK	2-11-13 JC OK	2-25-13 Chad OK
3-4-13 JKC OK	3-4-13 JKC OK	3-25-13 Chad OK

Lane: #2

CVS Cals	BAR-90 Cals	2WD Dyno Cals
1-28-13 JKC OK	1-28-13 JKC OK	1-24-13 Chad OK
2-11-13 JC OK	2-11-13 JC OK	2-21-13 Chad OK
3-4-13 JKC OK	3-4-13 JKC OK	3-14-13 Chad OK

Lane: #3

CVS Cals	BAR-90 Cals	2WD Dyno Cals
1-28-13 JKC OK	1-28-13 JKC OK	1-24-13 Chad OK
2-11-13 JC OK	2-11-13 JC OK	2-21-13 Chad OK
3-4-13 JKC OK	3-4-13 JKC OK	3-14-13 Chad OK

Lane: # Lane #3 is also an RBD tandem test lane

Calibration Records Audit (2nd Quarter, 2013)

Date: 8-6-13

Vehicle Emission Test Site: Hammond, test site #1

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

CVS Cals.	BAR-90 Cals.	4WD Dyno Cals.
4-15-13 JKC OK	4-15-13 JKC OK	4-22-13 JKC OK
5-6-13 JKC OK	5-6-13 JKC OK	5-20-13 Chad OK
6-3-13 JKC OK	6-3-13 JKC OK	6-24-13 Chad OK

Lane: #2

CVS Cals.	BAR-90 Cals.	2WD Dyno Cals.
4-15-13 JKC OK	4-15-13 JKC OK	4-18-13 Chad OK
5-6-13 JKC OK	5-6-13 JKC OK	5-9-13 Chad OK
6-3-13 JKC OK	6-3-13 JKC OK	6-26-13 Chad OK

Lane: #3

CVS Cals.	BAR-90 Cals.	2WD Dyno Cals.
4-15-13 JKC OK	4-15-13 JKC OK	4-18-13 Chad OK
5-6-13 JKC OK	5-6-13 JKC OK	5-9-13 Chad OK
6-3-13 JKC OK	6-3-13 JKC OK	6-26-13 Chad OK

Lane: #

Calibration Records Audit (3rd Quarter, 2013)

Date: 11-15-13

Vehicle Emission Test Site: Hammond, test site #1

PAL

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

CVS Cals

BAR 40 Cals

4WD Dyno Cals

7-8-13 JKC OK

7-8-13 JKC OK

7-15-13 Chad OK

8-12-13 JKC OK

8-12-13 JKC OK

8-26-13 Chad OK

9-4-13 JKC OK

9-4-13 JKC OK

9-30-13 Chad OK

Lane: #2

CVS Cals

BAR 40 Cals

2WD Dyno Cals

7-8-13 JKC OK

7-8-13 JKC OK

7-14-13 Chad OK

8-12-13 JKC OK

8-12-13 JKC OK

8-28-13 Chad OK

9-4-13 JKC OK

9-4-13 JKC OK

9-20-13 Chad OK

Lane: #3

CVS Cals

BAR 40 Cals

2WD Dyno Cals

7-8-13 JKC OK

7-8-13 JKC OK

7-14-13 Chad OK

8-12-13 JKC OK

8-12-13 JKC OK

8-28-13 Chad OK

9-4-13 JKC OK

9-4-13 JKC OK

9-20-13 Chad

Lane #3 is also an OBDII tandem lane

Lane: #

Calibration Records Audit (4th Quarter, 2013)

Date: 2-21-14

Vehicle Emission Test Site: Hammond, site #1

OK

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

CVS Cal	BAR-40 Cal	4WD Dyno Cal
10-21-13 JKC OK	10-21-13 JKC OK	10-25-13 Chad OK
11-4-13 JKC OK	11-4-13 JKC OK	11-25-13 Chad OK
12-2-13 JKC OK	12-2-13 JKC OK	12-23-13 Chad OK

Lane: #2

CVS Cal	BAR-40 Cal	2WD Dyno Cal
10-21-13 JKC OK	10-21-13 JKC OK	10-25-13 Chad OK
11-4-13 JKC OK	11-4-13 JKC OK	11-27-13 Chad OK
12-2-13 JKC OK	12-2-13 JKC OK	12-11-13 Chad OK

Lane: #3

Cals (also OBD tandem lane)	BAR-40 Cal	2WD Dyno Cal
10-21-13 JKC OK	10-21-13 JKC OK	10-30-13 Chad OK
11-4-13 JKC OK	11-4-13 JKC OK	11-27-13 Chad OK
12-2-13 JKC OK	12-2-13 JKC OK	12-11-13 Chad OK

Lane: #1

Yearly Cals	JC
Lane 1: 12-23-13 SAD(CFV) Cal	OK
Lane 2: 12-23-13 SAD(CFV) Cal	OK
Lane 3: 12-23-13 SAD(CFV) Cal	OK

Calibration Records Audit (1st Quarter, 2013)

Date: 4/25/2013

Vehicle Emission Test Site: Griffith, test site #2

PK

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: # 1

CVS Calibration			BAR-90 Cals			4WD Dyno Cals.		
1-14-13	JC	OK	1-14-13	JC	OK	1-25-13	Chad	OK
2-4-13	JC	OK	2-4-13	JC	OK	2-25-13	Chad	OK
3-4-13	JC	OK	3-4-13	JC	OK	3-18-13	Chad	OK

Lane: # 2

CVS Cals			BAR-90 Cals			2WD Dyno Cals.		
1-14-13	JC	OK	1-14-13	JC	OK	1-25-13	Chad	OK
2-4-13	JC	OK	2-4-13	JC	OK	2-13-13	Chad	OK
3-4-13	JC	OK	3-4-13	JC	OK	3-7-13	Chad	OK

Lane: # 3

Tandem OBD II lane "Only"

Lane: # 4

Tandem OBD II lane and Idle+Enhanced test.

CVS Cals			BAR-90 Cals			2WD Dyno Cals.		
1-14-13	JC	OK	1-14-13	JC	OK	1-25-13	Chad	OK
2-4-13	JC	OK	2-4-13	JC	OK	2-13-13	Chad	OK
3-4-13	JC	OK	3-4-13	JC	OK	3-7-13	Chad	OK



# Calibration Records Audit (2nd Quarter, 2013)

Date: 8-6-13

Vehicle Emission Test Site: Griffith, test site #2

PAK

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

CVS Cals.	BAR-40 Cals.	4WD Dyno Cals.
4-8-13 JC OK	4-8-13 JC OK	4-8-13 Chad OK
5-13-13 JC OK	5-13-13 JC OK	5-20-13 Chad OK
6-10-13 JC OK	6-10-13 JC OK	6-24-13 Chad OK

Lane: #2

CVS Cals.	BAR-40 Cals.	2WD Dyno Cals.
4-30-13 JC OK	4-30-13 JC OK	4-10-13 Chad OK
5-29-13 JC OK	5-29-13 JC OK	5-3-13 Chad OK
6-10-13 JC OK	6-10-13 JC OK	6-21-13 Chad OK

Lane: #3

OBDII "only" tandem lane

Lane: #4

CVS Cals.	BAR-40 Cals.	2WD Dyno Cals.
4-18-13 JC OK	4-18-13 JC OK	4-10-13 Chad OK
5-25-13 JC OK	5-25-13 JC OK	5-3-13 Chad OK
6-17-13 JC OK	6-10-13 JC OK	6-27-13 Chad OK

Calibration Records Audit (3rd Quarter, 2013)

Date: 11/15/13

Vehicle Emission Test Site: Griffith, test site #2

PAK

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

CVS Cals.

BAR 40 Cals.

4WD Dyno Cals.

7-1-13 JC OK

7-1-13 JC OK

7-15-13 Chad OK

8-5-13 JC OK

8-5-13 JC OK

8-12-13 JC OK

9-16-13 JC OK

9-16-13 JC OK

9-23-13 Chad OK

Lane: #2

CVS Cals.

FAR 40 Cals.

2WD Dyno Cals.

7-1-13 JC OK

7-1-13 JC OK

7-11-13 Chad OK

8-5-13 JC OK

8-5-13 JC OK

8-12-13 JC OK

9-16-13 JC OK

9-16-13 JC OK

9-18-13 Chad OK

Lane: #3

OBD II "only" Tandem Lane.

Lane: #4

CVS Cals.

BAR 40 Cals.

2WD Dyno Cals.

7-8-13 JC OK

7-8-13 JC OK

7-11-13 Chad OK

8-5-13 JC OK

8-5-13 JC OK

8-12-13 JC OK

9-16-13 JC OK

9-16-13 JC OK

9-18-13 Chad OK

#1 9-23-13 Annual SAD CFV Cals, JC OK

#2 9-23-13 Annual SAD CFV Cals, JC OK

#4 9-23-13 Annual SAD CFV Cals, JC OK

Calibration Records Audit (4th Quarter, 2014)

Date: 2-20-14

Vehicle Emission Test Site: Griffith, site #2

PAU

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

CVS Cal.	BAR-40 Cal.	4WD Dyno Cal.
10-7-13 JC OK	10-7-13 JC OK	10-21-13 Chad OK
11-4-13 JC OK	11-4-13 JC OK	11-25-13 Chad OK
12-9-13 JC OK	12-9-13 JC OK	12-16-13 Chad OK

Lane: #2

CVS Cal.	BAR-40 Cal.	2WD Dyno Cal.
10-7-13 JC OK	10-7-13 JC OK	10-16-13 Chad OK
11-4-13 JC OK	11-4-13 JC OK	11-20-13 Chad OK
12-9-13 JC OK	12-9-13 JC OK	12-12-13 Chad OK

Lane: #3

DET Only tandem lane

Lane: #4

CVS Cal.	BAR-40 Cal.	2WD Dyno Cal.
10-7-13 JC OK	10-7-13 JC OK	10-16-13 Chad OK
11-4-13 JC OK	11-4-13 JC OK	11-20-13 Chad OK
12-9-13 JC OK	12-9-13 JC OK	12-12-13 Chad OK

Calibration Records Audit (1st Quarter, 2013)

Date: 4/26/13

Vehicle Emission Test Site: Hobart - test site #3

PRD

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

CVS Cal	BAR-AD Cal	4WD Dyno Cal
1-30-13 CAM OK	1-30-13 CAM OK	1-7-13 Chad OK
2-25-13 CAM OK	2-25-13 CAM OK	2-14-13 Chad OK
3-28-13 CAM OK	3-28-13 CAM OK	3-14-13 Chad OK

Lane: #2

OBDII only test lane - tandem

Lane: #3

CVS Cal	BAR-AD Cal	2WD Dyno Cal
1-30-13 CAM OK	1-30-13 CAM OK	1-15-13 Chad OK
2-28-13 CAM OK	2-28-13 CAM OK	2-14-13 Chad OK
3-26-13 CAM OK	3-26-13 CAM OK	3-13-13 Chad OK

Lane: #

Calibration Records Audit (2nd Quarter, 2013)

Date: 10-24-13  
PAD

Vehicle Emission Test Site: Hobart - Station # 3

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed - result

Date calibration performed - result

Lane: #1

CVS Cals.	BAR-90 Cals.	4WD Dyno Cals.
4-22-13 CAM OK	4-22-13 CAM OK	4-1-13 Chad OK
5-20-13 CAM OK	5-20-13 CAM OK	5-6-13 Chad OK
6-24-13 CAM OK	6-24-13 CAM OK	6-10-13 Chad OK

Lane: #2

ABDIF only - Tandem Lane

Lane: #3

CVS Cals.	BAR-90 Cals.	2WD Dyno Cals.
4-30-13 CAM OK	4-22-13 CAM OK	4-3-13 Chad OK
5-20-13 CAM OK	5-20-13 CAM OK	5-1-13 Chad OK
6-30-13 CAM OK	6-20-13 CAM OK	6-6-13 Chad OK

Lane: #

Calibration Records Audit (3rd Quarter, 2013)

Date: 10-24-13

Vehicle Emission Test Site: Hobart - Test Site #3

PAK

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

CVS Cals.	BAR-40 Cals.	4WD Dyno Cals.
7-24-13 CAM OK	7-30-13 CAM OK	7-1-13 Chas OK
8-26-13 CAM OK	8-26-13 CAM OK	8-2-13 Chas OK
9-30-13 CAM OK	9-30-13 CAM OK	9-9-13 Chas OK

Lane: #2

ABD II Only - Tandem Lane

Lane: #3

CVS Cals.	BAR-40 Cals.	2WD Dyno Cals.
7-29-13 CAM OK	7-30-13 CAM OK	7-5-13 Chas OK
8-22-13 CAM OK	8-22-13 CAM OK	8-15-13 Chas OK
9-30-13 CAM OK	9-30-13 CAM OK	9-13-13 Chas OK

Lane: #

Calibration Records Audit (4th Quarter, 2013)

Date: 2-21-14

Vehicle Emission Test Site: Hobart, test site #3

PAK

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

CVS Cal	ISAR-40 Cal	4WD Dyno Cal
10-28-13 CAM OK	10-28-13 CAM OK	10-7-13 Check OK
11-28-13 CAM OK	11-28-13 CAM OK	11-4-13 Check OK
12-16-13 CAM OK	12-16-13 CAM OK	12-2-13 Check OK

Lane: #2

DBD Only tandem tune

Lane: #3

CVS Cal	ISAR-40 Cal	2WD Dyno Cal
10-28-13 CAM OK	11-28-13 CAM OK	10-4-13 Check OK
11-22-13 CAM OK	11-28-13 CAM OK	11-6-13 Check OK
12-16-13 CAM OK	12-16-13 CAM OK	12-4-13 Check OK

Lane: #

Yearly Flow Cals

Lane #1	10-28-13	CAM OK
Lane #3	11-13-13	CAM OK

Calibration Records Audit (1st Quarter, 2013)

Date: 5-2-13

Vehicle Emission Test Site: Crown Point - Station 4

RAID

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

DVS Cals.

BAR-40 Cals.

4WD Dyno Cals.

1-25-13 JC OK

1-25-13 JC OK

1-14-13 Chad OK

2-18-13 JKC OK

2-18-13 JKC OK

2-11-13 Chad OK

3-25-13 JKC OK

3-25-13 JKC OK

3-11-13 Chad OK

Lane: #2

DVS Cals.

BAR-40 Cals.

2WD Dyno Cals.

1-30-13 JC OK

1-30-13 JC OK

1-31-13 Chad OK

2-18-13 JKC OK

2-22-13 JKC OK

2-22-13 Chad OK

3-25-13 JKC OK

3-25-13 JKC OK

3-25-13 Chad OK

Lane: #3

OBDII only tandem lane

Lane: #



# Calibration Records Audit (2nd Quarter, 2013)

Date: 8-6-13

Vehicle Emission Test Site: Crown Point, station #4

RAN

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

CVS Cals.		BAR-40 Cals.		4WD Dyno Cals.	
4-29-13	JKE OK	4-29-13	JKE OK	4-29-13	Chad OK
5-13-13	JC OK	5-13-13	JC OK	5-13-13	Chad OK
6-24-13	JKE OK	6-24-13	JKE OK	6-17-13	Chad OK

Lane: #2

CVS Cals.		BAR-40 Cals.		2WD Dyno Cals.	
4-29-13	JKE OK	4-29-13	JKE OK	4-29-13	Chad OK
5-13-13	JC OK	5-13-13	JC OK	5-16-13	Chad OK
6-24-13	JKE OK	6-24-13	JKE OK	6-26-13	Chad OK

Lane: #3

DBD II "Only" tandem lane

Lane: #

Calibration Records Audit (3rd Quarter, 2011)

Date: 11-14-13

Vehicle Emission Test Site: Crown Point, Station #4

PAK

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

DVS Cals.

BAR 90 Cals.

4WD Dyno Cals.

7-24-13 JKC OK

7-24-13 JKC OK

7-8-13 Chad OK

8-26-13 JC OK

8-26-13 JC OK

8-19-13 Chad OK

9-30-13 JKC OK

9-30-13 JKC OK

9-23-13 Chad OK

Lane: #2

DVS Cals.

BAR 90 Cals.

2WD Dyno Cals.

7-24-13 JKC OK

7-24-13 JKC OK

7-8-13 Chad OK

8-26-13 JC OK

8-26-13 JC OK

8-28-13 Chad OK

9-30-13 JKC OK

9-30-13 JKC OK

9-27-13 Chad OK

Lane: #3

ABD II "Only" – tandem lane

Lane: #

Calibration Records Audit (4th Quarter, 2013)

Date: 2/20/14

Vehicle Emission Test Site: Crown Point, Station #4

RAJ

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

CVS Cals.	BAR-40 Cals.	4WD Dyno Cals.
10-28-13 JC OK	10-28-13 JC OK	10-21-13 Chad OK
11-25-13 JC OK	11-25-13 JC OK	11-12-13 Chad OK
12-17-13 JC OK	12-17-13 JC OK	12-9-13 Chad OK

Lane: #2

CVS Cals.	BAR-90 Cals.	2WD Dyno Cals.
10-28-13 JC OK	10-28-13 JC OK	10-23-13 Chad OK
11-25-13 JC OK	11-25-13 JC OK	11-20-13 Chad OK
12-17-13 JC OK	12-17-13 JC OK	12-5-13 Chad OK

Lane: #3

DBT Only - tandem lane

Lane: #

Yearly Cals.

Lane #1	SAD (CFV) Cal.	✓ OK on 11-25-2013 by JC
Lane #2	SAD (CFV) Cal.	✓ OK on 11-25-2013 by JC

Calibration Records Audit (1st Quarter, 2013)

Date: 5-2-13

Vehicle Emission Test Site: Valparaiso - Station 5

PRK

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed - result

Date calibration performed - result

Lane: #1

CVS Cals	BAR-40 Cals	4WD Dyno Cals
1-7-13 CAM OK	1-7-13 CAM OK	1-7-13 Chd OK
2-10-13 CAM OK	2-10 CAM OK	2-4-13 Chd OK
3-10-13 CAM OK	3-10 JC OK	3-4-13 Chd OK

Lane: #2

CVS Cals	BAR-40 Cals	2WD Dyno Cals
1-7-13 CAM OK	1-7-13 CAM OK	none
DRD II only		
DRD II only		

Lane: #3

CVS Cals	BAR-40 Cals	2WD Dyno Cals
1-30-13 CAM OK	1-30-13 CAM OK	1-4-13 Chd OK
2-10-13 CAM OK	2-10-13 CAM OK	2-1-13 Chd OK
3-10-13 CAM OK	3-10-13 JC OK	3-1-13 Chd OK

Lane: #

Calibration Records Audit (2nd Quarter, 2013)

Date: 10-25-13

Vehicle Emission Test Site: Valparaiso - Station #5

PAN

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed - result

Date calibration performed - result

Lane: #1

CVS Cals,	BAR-40 Cals,	4WD Dyno Cals,
4-8-13 CAM OK	4-8-13 CAM OK	4-1-13 chad OK
5-13-13 CAM OK	5-13-13 CAM OK	5-6-13 chad OK
6-24-13 CAM OK	6-24-13 CAM OK	6-10-13 chad OK

Lane: #2

CVS Cals,	BAR-40 Cals,	2WD Dyno Cals,
— OBD II only —		
6-12-13 CAM OK	6-13-13 CAM OK	6-13-13 chad OK

Lane: #3

CVS Cals,	BAR-40 Cals,	2WD Dyno Cals,
4-8-13 CAM OK	4-8-13 CAM OK	4-4-13 chad OK
5-13-13 CAM OK	5-13-13 CAM OK	5-1-13 chad OK
— OBD II only —		
		6-6-13 chad OK

Lane: #

Calibration Records Audit (3rd Quarter, 2013)

Date: 10-25-13

Vehicle Emission Test Site: Valparaiso - Station #5

PAL

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed - result

Date calibration performed - result

Lane: #1

CVS Cals.	BAR-90 Cals.	4WD Dyno Cals.
7-15-13 CAM OK	7-15-13 CAM OK	7-1-13 Chad OK
8-5-13 CAM OK	8-5-13 CAM OK	8-5-13 Chad OK
9-9-13 CAM OK	9-9-13 CAM OK	9-9-13 Chad OK

Lane: #2

CVS Cals.	BAR-90 Cals.	2WD Dyno Cals.
7-15-13 CAM OK	7-15-13 CAM OK	7-1-13 Chad OK
8-5-13 CAM OK	8-5-13 CAM OK	8-5-13 CAM OK
9-9-13 CAM OK	9-9-13 CAM OK	9-4-13 Chad OK

Lane: #3

CVS Cals.	BAR-90 Cals.	2WD Dyno Cals.
Single lane		
— OBD only — <del>Tandem lane</del> —		

Lane: #

Calibration Records Audit (4th Quarter, 2013)

Date: 3/27/14

Vehicle Emission Test Site: Valpo - Station #5

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed - result

Date calibration performed - result

Lane: #1

CVS Cals	BAR-90 Cals	4WD Dyno Cals
10-7-13 CAM OK	10-7-13 CAM OK	10-7-13 Chad OK
11-18-13 CAM OK	11-18-13 CAM OK	11-9-13 Chad OK
12-2-13 CAM OK	12-2-13 CAM OK	12-2-13 Chad OK

Lane: #2

CVS Cals	BAR-90 Cals	2WD Dyno Cals
10-7-13 CAM OK	10-7-13 CAM OK	10-3-13 Chad OK
11-21-13 CAM OK	11-21-13 CAM OK	11-6-13 Chad OK
12-2-13 CAM OK	12-2-13 CAM OK	12-4-13 Chad OK

Lane: #3

DBD II only

Lane: #

Lane #	Date	Annual Flow Cals	SAD/CFV Cal	OK	CAM
Lane #1	10-7-13	Annual Flow Cals	SAD/CFV Cal	OK	CAM
Lane #2	10-7-13	Annual Flow Cals	SAD/CFV Cal	OK	CAM

Calibration Records Audit (1st Quarter, 2013)

Date: 4-26-13

Vehicle Emission Test Site: Gary - test site #8

PAN

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed - result

Date calibration performed - result

Lane: #1

CVS Cals	BAR-40 Cals	4WD Dyno Cals
1-7-13 JKL OK	1-7-13 JKL OK	1-29-13 Chad OK
2-11-13 JKL OK	2-11-13 JKL OK	2-18-13 Chad OK
3-11-13 JKL OK	3-11-13 JKL OK	3-18-13 Chad OK

Lane: #2

CVS Cals	BAR-40 Cals	2WD Dyno Cals
1-7-13 JKL OK	1-7-13 JKL OK	1-18-13 Chad OK
2-11-13 JKL OK	2-11-13 JKL OK	2-20-13 Chad OK
3-11-13 JKL OK	3-11-13 JKL OK	3-13-13 Chad OK

Lane: #3

CVS Cals	BAR-40 Cals	2WD Dyno Cals
1-7-13 JKL OK	1-7-13 JKL OK	1-30-13 Chad OK
2-11-13 JKL OK	2-11-13 JKL OK	2-20-13 Chad OK
3-11-13 JKL OK	3-11-13 JKL OK	3-10-13 Chad OK

Lane: #

Lane 3 is ABD tandem but retains IM-93 capability.



Calibration Records Audit (2nd Quarter, 2013)

Date: 6-6-13

Vehicle Emission Test Site: Gary - test site #2

PAR

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed - result

Date calibration performed - result

Lane: #1

CVS Cals	BAR-40 Cals	4WD Dyno Cals
4-1-13 JKC OK	4-1-13 JKC OK	4-15-13 Chad OK
5-13-13 JKC OK	5-13-13 JKC OK	5-13-13 Chad OK
6-17-13 JKC OK	6-17-13 JKC OK	6-17-13 Chad OK

Lane: #2

CVS Cals	BAR-40 Cals	2WD Dyno Cals
4-1-13 JKC OK	4-1-13 JKC OK	4-11-13 Chad OK
5-13-13 JKC OK	5-13-13 JKC OK	5-8-13 Chad OK
6-17-13 JKC OK	6-17-13 JKC OK	6-27-13 Chad OK

Lane: #3

CVS Cals	BAR-40 Cals	2WD Dyno Cals
4-1-13 JKC OK	4-1-13 JKC OK	4-11-13 Chad OK
5-13-13 JKC OK	5-13-13 JKC OK	5-8-13 Chad OK
6-17-13 JKC OK	6-17-13 JKC OK	6-27-13 Chad OK

Lane: #

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Calibration Records Audit (3rd Quarter, 2013)

Date: 11-15-13

Vehicle Emission Test Site: Gary, test site #B

PAJ

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

CVS Cals.	BARAD Cals.	4WD Dyno Cals.
7-23-13 JKC OK	7-22-13 JKC OK	7-18-13 Chad OK
8-14-13 JKC OK	8-14-13 JKC OK	8-26-13 Chad OK
9-23-13 JKC OK	9-23-13 JKC OK	9-30-13 Chad OK

Lane: #2

CVS Cals.	BARAD Cals.	2WD Dyno Cals.
7-22-13 JKC OK	7-22-13 JKC OK	7-17-13 Chad OK
8-14-13 JKC OK	8-14-13 JKC OK	8-30-13 Chad OK
9-23-13 JKC OK	9-23-13 JKC OK	9-19-13 Chad OK

Lane: #3

CVS Cals.	BARAD Cals.	2WD Dyno Cals.
7-22-13 JKC OK	7-22-13 JKC OK	7-17-13 Chad OK
8-14-13 JKC OK	8-14-13 JKC OK	8-16-13 Chad OK
9-23-13 JKC OK	9-23-13 JKC OK	9-26-13 Chad OK

Lane: #

#1 Annual SAD CFV Cals OK. 11/27/13 J

Calibration Records Audit (4th Quarter, 2013)

Date: 2/21/14  
PAA

Vehicle Emission Test Site: Gary, site #B

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

CVS Cal.	BAR-40 Cal.	4WD Dyno Cal.
10-28-13 JC OK	11-28-13 JC OK	10-21-13 Chad OK
11-25-13 JKC OK	11-25-13 JKC OK	11-18-13 Chad OK
12-11-13 JKC OK	12-11-13 JKC OK	12-16-13 Chad OK

Lane: #2

CVS Cal.	BAR-40 Cal.	2WD Dyno Cal.
10-17-13 JKC OK	10-17-13 JKC OK	10-23-13 Chad OK
11-25-13 JKC OK	11-25-13 JKC OK	11-22-13 Chad OK
12-11-13 JKC OK	12-26-13 JKC OK	12-13-13 Chad OK

Lane: #3

CVS Cal.	BAR-40 Cal.	2WD Dyno Cal.
10-16-13 JKC OK	10-17-13 JKC OK	10-23-13 Chad OK
11-25-13 JKC OK	11-25-13 JKC OK	11-22-13 Chad OK
12-13-13 JKC OK	12-26-13 JKC OK	12-13-13 Chad OK

Lane: #

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Calibration Records Audit (1st Quarter, 2013)

Date: April 26, 2013

Vehicle Emission Test Site: Portage - test site #9

PAK

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: #1

CVS cals.	BAR-90 cals.	4WD Dyno Cals
1-14-13 CAM OK	1-14-13 CAM OK	1-14-13 Chad OK
2-25-13 CAM OK	2-25-13 CAM OK	2-18-13 Chad OK
3-25-13 <del>CAM</del> JC OK	3-25-13 <del>CAM</del> JC OK	3-11-13 Chad OK

Lane: #2

CVS cals	BAR-90 Cals.	2WD Dyno Cals.
1-14-13 CAM OK	1-14-13 CAM OK	1-16-13 Chad OK
2-27-13 CAM OK	2-25-13 CAM OK	2-6-13 Chad OK
3-25-13 JC OK	3-25-13 JC OK	3-6-13 Chad OK

Lane: #3

DBD II tandem lane only

Lane: #

Calibration Records Audit (2nd Quarter, 2013)

Date: 10-24-13

Vehicle Emission Test Site: Portage - Station #4

PAN

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed - result

Date calibration performed - result

Lane: #1

CVS Calg.	BAR-90 Calg.	4WD Dyno Calg.
4-22-13 CAM OK	4-22-13 CAM OK	4-15-13 Chad OK
5-13-13 CAM OK	5-20-13 CAM OK	5-13-13 Chad OK
6-24-13 CAM OK	6-24-13 CAM OK	6-17-13 Chad OK

Lane: #2

CVS Calg.	BAR-90 Calg.	2WD Dyno Calg.
4-22-13 CAM OK	4-22-13 CAM OK	4-19-13 Chad OK
5-20-13 CAM OK	5-20-13 CAM OK	5-2-13 Chad OK
6-19-13 CAM OK	6-19-13 CAM OK	6-14-13 Chad OK

Lane: #3

DBD II only testing

Lane: #

Calibration Records Audit (3rd Quarter, 2013)

Date: 10-24-13

Vehicle Emission Test Site: Portage - Station #9

PAN:

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed - result

Date calibration performed - result

Lane: #1

CVS Cals.	BAR-40 Cals.	4WD Dyno Cals.
7-15-13 CAM OK	7-15-13 CAM OK	7-15-13 Chack OK
8-26-13 CAM OK	8-26-13 CAM OK	8-19-13 CAM OK
9-30-13 CAM OK	9-30-13 CAM OK	9-16-13 Chack OK

Lane: #2

CVS Cals.	BAR-40 Cals.	2WD Dyno Cals.
7-29-13 CAM OK	7-29-13 CAM OK	7-5-13 Chack OK
8-22-13 CAM OK	8-26-13 CAM OK	8-15-13 Chack OK
9-26-13 CAM OK	9-30-13 CAM OK	9-6-13 Chack OK

Lane: #3

ORBD II only lane

Lane: #

Calibration Records Audit (4<sup>th</sup> Quarter, 2013)

Date: 2-21-14

Vehicle Emission Test Site: Portage, site # 4

HAID

Constant Volume Sampling System  
(equipment checks and ten point calibrations)

Dynamometer Calibration

Date calibration performed – result

Date calibration performed – result

Lane: # 1

CVS Cal	BAR-90 Cal	4WD Dyno Cal
10-21-13 CAM OK	10-21-13 CAM OK	10-21-13 Chao OK
11-10-13 CAM OK	11-10-13 CAM OK	11-10-13 Chao OK
12-9-13 CAM OK	12-9-13 CAM OK	12-9-13 Chao OK

Lane: # 2

CVS Cal	BAR-90 Cal	2WD Dyno Cal
10-21-13 CAM OK	10-21-13 CAM OK	10-9-13 Chao OK
11-20-13 CAM OK	11-20-13 CAM OK	11-10-13 Chao OK
12-9-13 CAM OK	12-9-13 CAM OK	12-5-13 Chao OK

Lane: # 3

RBD tandem lane only

~~Lane: #~~     

Yearly Cal.

10-21-13	SAD (CFV) Cal	CAM OK	lane #1	Air Flow Cal.
10-21-13	SAD (CFV) Cal	CAM OK	lane #2	Air Flow Cal.

2013 Indiana response to:

40 CFR Part 51-Subpart S Inspection/Maintenance Program Requirements  
51.366 – Data Analysis and Reporting Requirements

(c) Quality Control Report

- (3) The number and percentage of stations that have failed equipment audits:

None

- (4) Number and percentage of stations and lanes shut down as a result of equipment audits:

None

During the course of our calibration paperwork audits at the test sites we have found that if an analyzer or dynamometer has experienced some difficulty holding a calibration it is replaced.

On a daily basis, as soon as a problem manifests itself with a failed daily calibration or failed zero/span check the test equipment is locked out and the lane is automatically shut down. Inoperable equipment is repaired or replaced in a timely manner.